

## **Review of the Oonopidae of Egypt (Arachnida: Araneae)**

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### **Abstract**

Eight species of seven genera of family Oonopidae are recorded from Egypt. A key to genera and species and a distribution map of the species in Egypt are included. *Ischnothyreus velox* Jackson, 1908 is recorded from Egypt for the first time. *Gamasomorpha margaritae* is transferred to *Opopaea margaritae* (Denis, 1947) comb. n.

**Keywords:** Araneae, Spiders, Oonopidae, Egypt.

### **Introduction**

Family Oonopidae Simon, 1890 (Goblin or dwarf hunting/armoured spiders) is a family of tiny (total length mostly <4 mm) haplogyne spiders which are free-living and mostly ground dwelling creatures. Simon (1893a) divided Oonopidae into two sections, Oonopidae molles (7 genera) and Oonopidae loricatae (11 genera). The most recent catalogue of spiders reports more than four times of that number of genera. Now, Oonopidae includes 491 worldwide distributed species of 73 genera, i.e. 1.23% of all described spider species and 1.98% of spider genera (Platnick, 2008). The number of described oonopid species and genera is considerably enlarged during the twentieth century. But, during the last ten years (1998-2007), only 28 taxonomical references dealt with Oonopidae out of more than 1900 references dealt with all spider families (Platnick, 2008). Seven of these references carried the name of Saaristo who studied and described several new species of this family. His works elucidate that "only a small fraction of the species of this family has been discovered and described" (Saaristo, 2007). It is necessary to review the oonopid fauna of every country to put the base line before the start of larger studies in this country and in the world, such as the Planetary Biodiversity Inventory (PBI) of the goblin spider family Oonopidae (<http://research.amnh.org/oonopidae/index.php>).

"For about eleven weeks between the middle of January and the middle of April 1864", the Reverend Octavius Pickard-Cambridge visited Egypt and collected spiders during his travel from Alexandria on the Mediterranean Sea to Aswan in the south of Egypt (Parker, 1991). Among the specimens collected by Cambridge, there were a few oonopid spiders. He described *Oonops scutatus* and *Oonops pauper* as two new species

from Alexandria (Cambridge, 1876). This record was the first one of oonopid spiders from Egypt. In 1882, Eugène Simon described *Salsula longipes* as a new genus and species from Alexandria (Simon, 1882). It became a synonym of Cambridge's *Oonops pauper*. Talking about *Orchestina pavesii*, Simon (1890) said: "I discovered this species in Corsica and I found it again later in Algeria and in Egypt". A few years later, Simon (1893b) described *Gamasomorpha arabica* from Ain Mouça near Suez. Also, in his Catalogue of North African arachnids, he recorded *Opopaea punctata* (O. P.-Cambridge, 1872) from Alexandria and Ain Musa (Simon, 1910). After 37 years, Jacques Denis (1947) described *Gamasomorpha margaritae* from Siwa in the western desert of Egypt. *Ovobulbus bokerella*, the most recent oonopid species was described 60 years later by Saaristo (2007) from Sinai. The most recent list of Egyptian spiders included only 5 species of 4 genera of Oonopidae (El-Hennawy, 2006).

In the present work, an old neglected record is noticed with the record of another species and genus for the first time from Egypt. Now, the known oonopids of Egypt are 8 species of 7 genera. A key to differentiate among the genera and species of Oonopidae recorded from Egypt is prepared. The photographs of four species and a distribution map of the oonopids recorded from Egypt are included (Map 1).

## Methods

The examined material is mentioned in detail with the note about or the description of the related species. The examined specimens are deposited in the Arachnid Collection of Egypt (ACE). The used abbreviations and measurements order are according to Saaristo (2007). All measurements are in millimetres.

Abbreviations used: ACE = Arachnid Collection of Egypt, Cairo, Egypt; AL = Length of abdomen; AW = Width of abdomen; CH = Carapace height; CHI = Ratio of carapace height to length; CI = Ratio of carapace width to length; CL = Carapace length; CW = Carapace width; D = Description; FeI = Ratio of femur IV length to carapace length; FeIV = Femur IV length; LLI = Ratio of tibia I length to carapace length; N = Note; TiI = Tibia I length; TL = Total length.

## The Oonopidae of Egypt

### Genus *Dysderina* Simon, 1891

- 44 species, from: Central and South America, Africa, and Philippines (Platnick, 2008).

In 1891, Simon established genus *Dysderina* and described *Dysderina princeps* Simon, 1891 as new species from St. Vincent. Two years later, he transferred 7 species from *Oonops* to *Dysderina* (Simon, 1893a); i.e. *D. scutata* (O. P.-Cambridge, 1876) from Egypt, *D. globosa* (Keyserling, 1877), *D. desultrix* (Keyserling, 1881), *D. machinator* (Keyserling, 1881), *D. principalis* (Keyserling, 1881) [Type species], *D. propinqua* (Keyserling, 1881), and *D. similis* (Keyserling, 1881) from Colombia and Peru. He also divided the genus into two groups according to eyes arrangement and male palpal organ structure (Simon, 1893a: p.304). In the same year, he described two new species, *D. bimucronata* and *D. purpurea*, from Philippines (Simon, 1893c). The same author described 4 new species, i.e. *D. capensis*, *D. keyserlingi*, *D. speculifera*, and *D. sublaevis*, from South Africa, Brazil, and Algeria (Simon, 1907). He and Fage (Simon & Fage, 1922, Fage & Simon, 1936) described 3 other new species from Kenya and East Africa, i.e. *D. granulosa* Simon & Fage, 1922, *D. perarmata* Fage & Simon, 1936, and *D. straba* Fage, 1936. The other 27 described species of this genus were mostly found in the New World

(Platnick, 2008). The majority of these species, 21, were described by Chickering (1951, 1968) from Panama and Central America. Hence, the distribution of the known *Dysderina* species extends from Central and South America to Africa (North, East, and South), and Philippines.

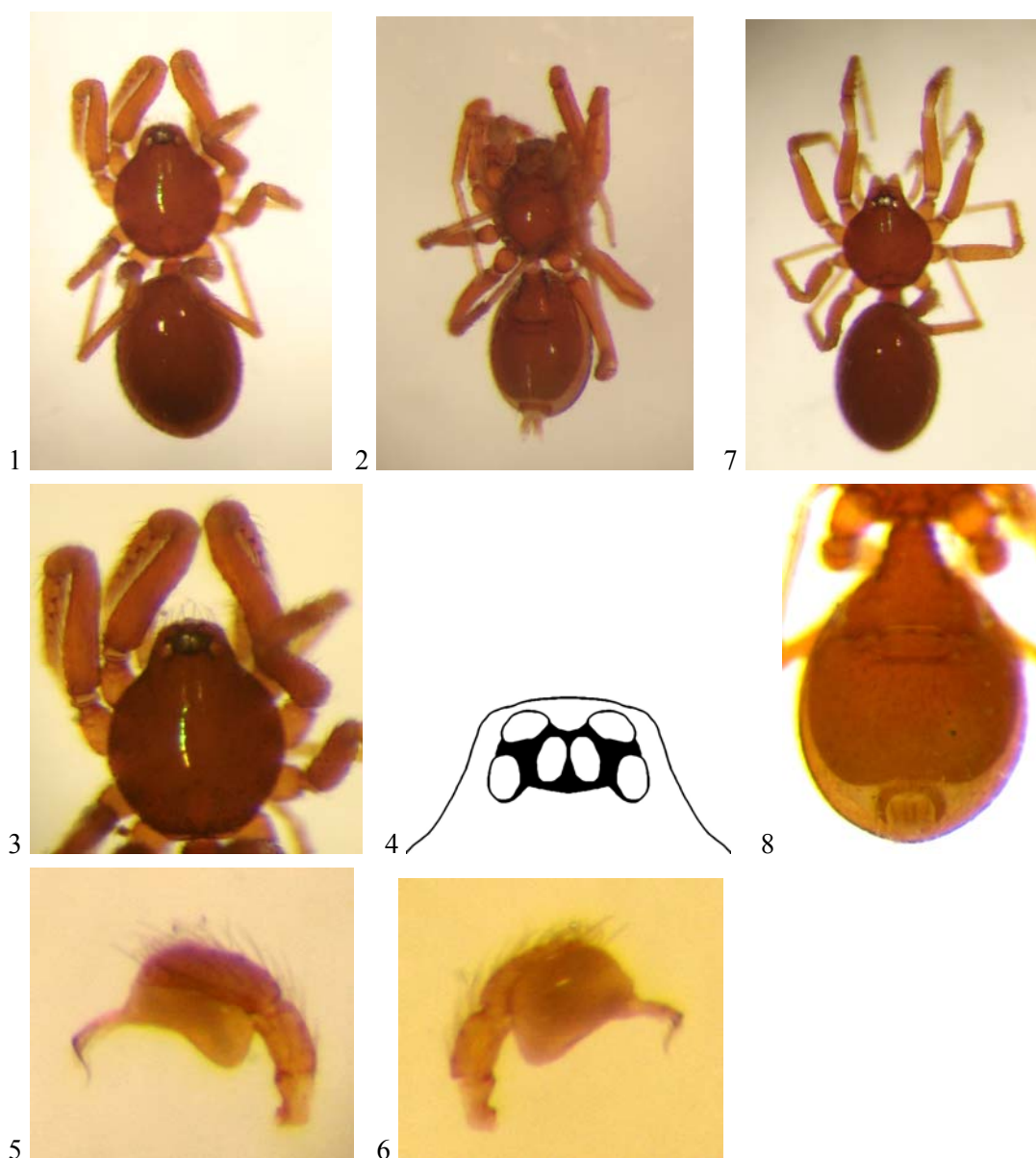
*Dysderina scutata* (O. P.-Cambridge, 1876)

Figs. 1-8.

*Oonops scutatus* O. P.-Cambridge, 1876: 547-549, pl. 58, f. 2A (D♂). Under stones, near Alexandria (31°12'N 29°54'E), 1♂ 2♀♀, April 1864, by O. P.-Cambridge (Deposited in Oxford University Museum of Natural History, U.K. (OUMNH)).

*D. s.* Simon, 1893a: 304.

*D. s.* Simon, 1910: 310 (N) Alexandria.



Figs. 1-8. *Dysderina scutata* (O. P.-Cambridge, 1876)

Figs. 1-6. ♂. 1. dorsal view. 2. ventral view. 3. dorsal view of cephalothorax and first legs showing their spination. 4. eyes. 5. right palp, prolateral view. 6. right palp, retrolateral view. Figs. 7-8. ♀. 7. dorsal view. 8. abdomen ventral view, showing epigynal area.

**World distribution:** Egypt.

**Material examined.** Egypt, El-Faiyum (29°31'N 30°84'E), 1♀, February 2002, Citrus orchard and Sohag (26°55'N 31°69'E), 2♂♂1♀, March 2002, Mango orchard, by M. Mohafez (ACE 20020200.01, 20020300.01-03).

**Description** (Extracted, with modifications, from Cambridge, 1876).

♂ TL  $1\frac{1}{4}$  line [= 2.65 mm]. The *cephalothorax* is oval, strongly constricted laterally at the caput [cephalic part]; the thoracic junctional point is (looked at in profile) of an angular form, and elevated above the level of the rest of the cephalothorax, the hinder slope being abrupt; it is of a bright orange-brown colour; and the sides and hinder part are thickly covered with minute tubercles or granulosities, which in some positions assume the appearance of punctures. The *eyes* are large, six in number, closely grouped together, and occupy nearly the whole of the upperside of the fore extremity of the caput, where they form a quadrilateral figure whose foremost side is considerably shorter than the hinder one; they do not differ much in size, and are all of a more or less oval shape; those of the hind central pair are closely contiguous to each other, their sides of contact being flattened and so closely joined as almost to conceal the junction. The eyes of each lateral pair are very near together, but not quite contiguous to each other, each fore lateral eye being also equally close to the hind central eye on its side, and each hind lateral eye still closer (almost contiguous) to the hind central nearest to it; the interval between those of the front row (or the fore laterals) is about equal to their longest diameter; the height of the clypeus, which projects a little at its lower margin, is rather less than half that of the facial space. The *legs* are moderately long and strong, of a lightish orange-yellow colour; and their relative length appeared to be 4, 1, 2, 3; the femora are the strongest, especially at their posterior extremities, which are abruptly enlarged on the upperside close to the articulation, but run evenly thence to the anterior extremities; they are furnished, but not very thickly, with hairs; the tibiae and metatarsi of the first and second pairs are armed beneath with a double series of long and strong sessile spines; the other two pairs of legs have bristles (or very slender spines) in a similar situation; each tarsus terminates with two curved claws springing from a distinct supernumerary claw- (or heel) joint. The *palpi* are short and not very strong; their colour is yellow, paler than that of the legs; and they are furnished with hairs and bristles; the cubital and radial joints are short, the former is bent downwards, the latter is rather the longest and strongest; the digital joint is narrow, tapering from the middle to the fore extremity, and no broader than, but almost double as long as, the radial; the palpal organs consist of a very large and prominent oval yellowish lobe with a largish curved, pale brownish yellow, pointed process at its anterior extremity. The *falces* [chelicerae] are moderately long, but not very strong, directed backwards towards the labium, furnished in front with bristly hairs, and similar in colour to the cephalothorax. The *maxillae* and *labium* are of normal form, the latter being rather large; these parts, with the *sternum*, are similar to the legs in colour. The *abdomen* is of an oval form, moderately convex above, and covered both above and below with a bright reddish yellow-brown somewhat corneous scutum, the approximate edges, according as they are more or less separated, showing a greater or less interval of pale yellowish membranous integument; the spiracular plates are continuous with each other, and, extending forwards, cover the pedicle by which the abdomen is connected with the cephalothorax; this pedicle is longer and more distinctly developed than in most other spiders; the upper scutum is very highly polished and glossy, and it is thinly but evenly covered with minute tubercles, each of which supports a fine bristly hair; the spinners are short and inconspicuous; they are enclosed below by a narrow reddish yellow-brown semicircular band of a similar nature to the scutum with which the abdomen is covered.

When the edges of the upper and lower scutum are brought together, they enclose and conceal the spinners. The spiracular openings are four in number, the two extra ones being smaller than the others and situated one close behind each of the two ordinary openings.

**Note.** The description, in detail, of Cambridge (1876) is enough. Only, measurements of male and female are added, in addition to pictures of them and their genitalia (Figs 1-8.)

**Measurements.** ♂: TL 1.80, CL 0.79, CW 0.64, CH 0.53, AL 1.01, AW 0.69, TiI 0.64, FeIV 0.74, CI 0.8, CHI 0.67, LLI 0.8, FeI 0.93; ♀: TL 2.07, CL 0.85, CW 0.69, CH 0.53, AL 1.22, AW 0.79, TiI 0.53, FeIV 0.69, CI 0.81, CHI 0.62, LLI 0.62, FeI 0.81.

#### Genus *Gamasomorpha* Karsch, 1881

- 57 species, from: USA, Central and South America, Africa, Middle East, Asia, and Australia (Platnick, 2008).

#### *Gamasomorpha arabica* Simon, 1893

*G. a.* Simon, 1893b: 302-303 (D♂). Aïn Mouça, near Suez (28°33'N 33°55'E).

*G. a.* Simon, 1910: 309 (N). Aïn Mouça, near Suez.

**World distribution:** Middle East.

**Description** (Translation of Simon, 1893b).

♂ TL 2 mm. – Cephalothorax oval, slightly convex, dark red, longitudinally diluted in middle, with subtle but thick skin-shrivelled and sparse thick white hairs on both sides. Posterior eyes row strongly recurved, medians distinctly separated from laterals. Anterior eyes with at least eye diameter distance between them. Abdominal scuta and sternum dark red, with dense and thin skin-shrivelled and greyish-white slanting slightly lanceolate hairs. Legs short, robust, yellowish-red. Pedipalps yellow, femur robust, patella and tibia subequally short, tarsus narrowly oval, bulb insignificantly cylindrical, lobe about equal length, fortified by a bended spine.

#### Genus *Ischnothyreus* Simon, 1893

- 19 species, from: Yemen, Seychelles, South East Asia, Pacific islands, USA, Central America, St. Helena, and Europe (introduced) (Platnick, 2008).

#### *Ischnothyreus velox* Jackson, 1908

Figs. 9-16.

*I. v.* Jackson, 1908: 51, pl. 4, f. 9-13 (D♂♀). [Not seen]

*I. v.* Bristowe, 1948: 890, f. 1, 15-20 (♂♀).

*I. v.* Locket & Millidge, 1951: 76, f. 33C, 35A, 37A, 38C, E (♂).

*I. v.* Saaristo, 2001: 347, f. 146B, 151, 155B (♂♀). [Not seen]

**World distribution:** Seychelles, Europe (introduced), Egypt [NEW RECORD].

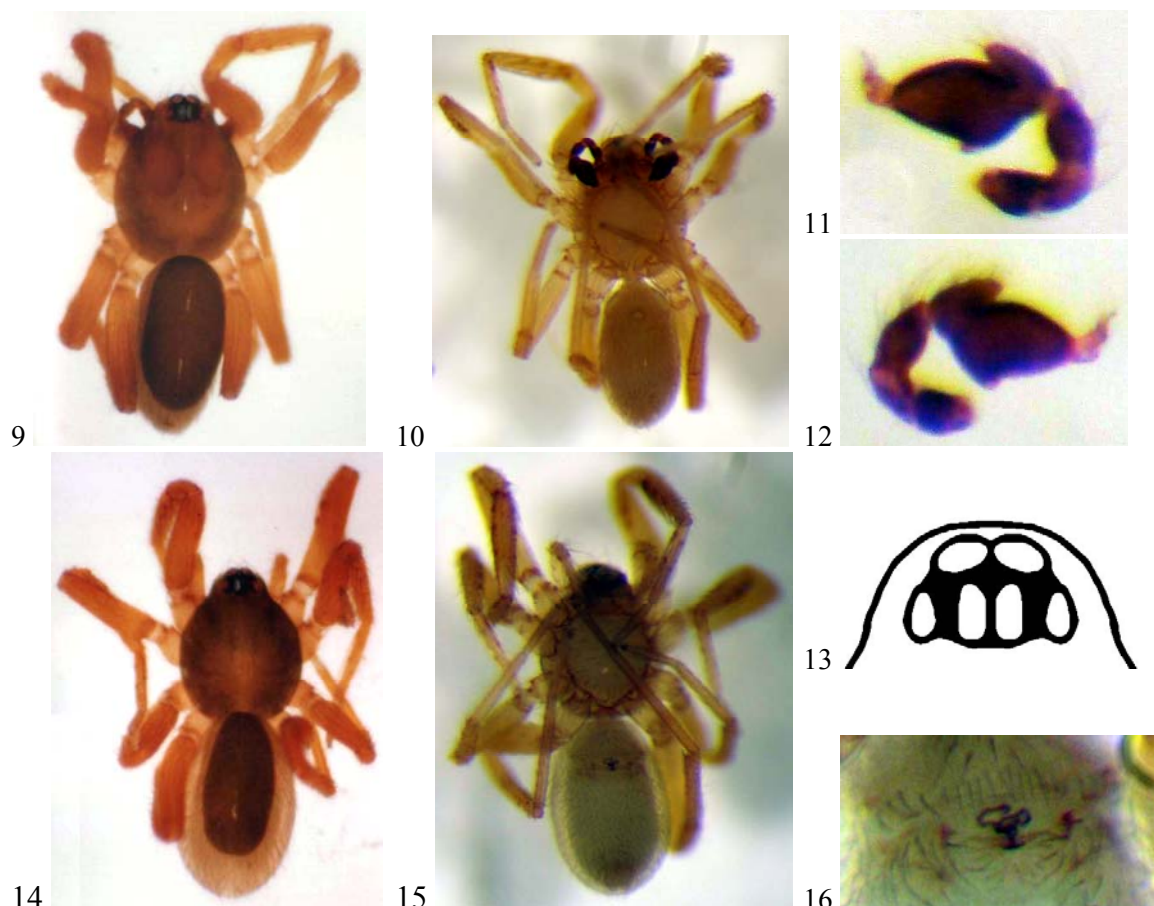
**Material examined.** Egypt, Cairo, Bab El-Khalq (30°02'44"N 31°15'09"E), 1♂1♀, 22 July 1999, 10:15 pm, jumping on the floor, inside the building of the Criminal Investigation Laboratory, by H. El-Hennawy (ACE 19990722.01-02).

**Description.** ♂ Colour yellowish-brown. Cephalothorax darker than abdomen and legs (yellow). A few hairs on clypeus and in the middle of carapace. Cephalothorax oval with cephalic area forwards protruding, with two oblong, pear-shaped, figures behind the ocular area until the middle of the cephalothorax. Abdomen covered by sparse hairs. Dorsal scutum greyish brown covers 88% of the abdomen. Ventral scutum small, light

yellow, covering only 69% of the area. Palps dark brown. Spination of legs: Femur I with 1 prolateral row of 2 spines, Femur II with 1 prolateral spine, Tibiae I, II with 1 prolateral + 1 ventral rows each of 4 spines, Metatarsi I, II with 1 prolateral + 1 ventral rows each of 2 spines. Other legs only with sparse hairs.

♀ Similar to male, without the two oblong, pear-shaped, figures of the cephalic area. Dorsal scutum only covers 78% of the median area of the abdomen and ventral scutum covers only 39% of the ventral side.

**Measurements.** ♂: TL 1.59, CL 0.79, CW 0.64, CH 0.48, AL 0.79, AW 0.42, TiI 0.53, FeIV 0.66, CI 0.8, CHI 0.6, LLI 0.33, FeI 0.83; ♀: TL 1.75, CL 0.79, CW 0.58, CH 0.37, AL 0.95, AW 0.58, TiI 0.58, FeIV 0.79, CI 0.73, CHI 0.47, LLI 0.73, FeI 1.0.



Figs. 9-16. *Ischnothyreus velox* Jackson, 1908

Figs. 9-13. ♂. 9. dorsal view. 10. ventral view. 11. right palp, prolateral view. 12. right palp, retrolateral view. 13. eyes. Figs. 14-16. ♀. 14. dorsal view. 15. ventral view. 16. epigynal area.

#### Genus *Opopaea* Simon, 1891

- 45 species, from: Americas, Africa, Middle East, Asia, and Australia (Platnick, 2008).

#### *Opopaea margaritae* (Denis, 1947) [NEW COMBINATION]

Fig. 17.

*Gamasomorpha m.* Denis, 1947: 83, pl. IV, f. 13-15 (D♀). Siwa (29°20'N 25°52'E), 1♀, 27 August 1935. (Deposited in the Natural History Museum of London, U.K. (BMNH)).

**World distribution:** Egypt.

**Description** (Extracted, with modifications, from Denis, 1947).

♀ TL 1.3 mm. Cephalothorax orange-yellow, very slightly striated on its sides; wider behind than in front; wider at the level of coxae II and towards coxae III; rather thick and flat, but abruptly sloping behind (as in *G. kulczynskii* Berland); clypeus very narrow, equalling the third part of an anterior eye, anterior eyes not quite their radius apart, slightly larger than the median ones; the postero-lateral ones the smallest. Sternum rather like *G. kulczynskii*, but its hind part more square, less lengthened; yellow with sunk points; maxillae more rounded than in *kulczynskii*. Palp and legs yellow with red articulations. Abdominal scuta orange-yellow, the posterior one annular, very pale, scarcely visible.

**Note.** The description of *Gamasomorpha margaritae* by Denis (1947) is very brief. His drawing of its cephalothorax (pl. IV, f. 13) (Fig. 17), its width and the ocular arrangement, suggests that it belongs to genus *Opopaea* instead of *Gamasomorpha*. This concurs with the discussions of Brignoli (1974 and 1975) who transferred *Gamasomorpha kulczynskii* to genus *Opopaea* (Brignoli, 1975).

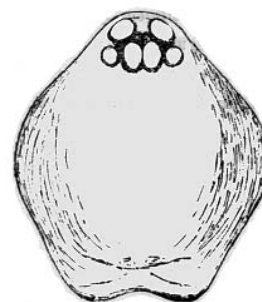


Fig. 17. *Opopaea margaritae* (Denis, 1947) ♀ cephalothorax, dorsal view. (After Denis, 1947: pl. IV, f. 13)

*Opopaea punctata* (O. P.-Cambridge, 1872)

Fig. 18.

*Oonops punctatus* O. P.-Cambridge, 1872: 223-224, pl. 14, f. 3A (D♂). 1♂, "was found under a stone on a wall close to Hasbeiya" (Hassbaya, south of Lebanon (Assi, 1982)).  
*O. p.* Simon, 1910: 309. (N) Alexandria (31°12'N 29°54'E), Ain Mouça (28°33'N 33°55'E).  
*O. p.* Brignoli, 1975: 224, f. 1-4 (♂).  
*O. p.* Assi, 1982: 87, f. 1 (♀).  
*O. p.* Saaristo, 2007: 133, f. 70-78 (♂♀).

**World distribution:** Egypt, Lebanon, Israel, doubtfully pantropical.

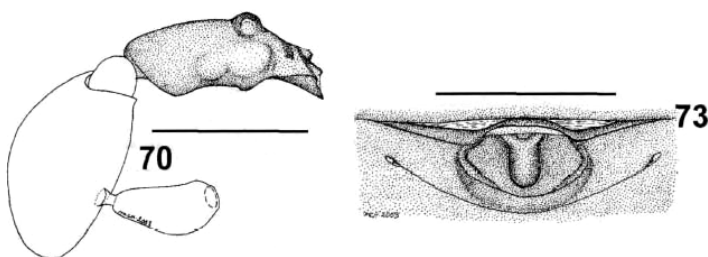


Fig. 18. *Opopaea punctata* (O. P.-Cambridge, 1872)  
 [70. ♂, right palp laterally. 73. ♀, epigastric area.] (After Saaristo, 2007)

*Opopaea* sp.

Figs. 19-26.

**Material examined.** Egypt, Cairo, Bab El-Khalq (30°02'44"N 31°15'09"E), 1♀, 2 October 1997, inside the building of the Criminal Investigation Laboratory, by H. El-Hennawy (ACE 19971002.01). Egypt, Sallant near El-Mansura (31°10'N 31°35'E), 1♂, 28 March 2003, in a cultivated field, by H. El-Hennawy (ACE 20030328.01).

**Note.** Despite of the fact that descriptions of Cambridge (1872), Brignoli (1975), Assi (1982), and Saaristo (2007) are sufficient for the identification of *Opopaea punctata*, the



two studied Egyptian specimens may belong to this species or not, but at least they belong to genus *Opopaea*. The measurements of the studied male and female specimen are included for comparison with other material.

**Measurements.** ♂ (Sallant): TL 1.43, CL 0.58, CW 0.48, CH 0.37, AL 0.85, AW 0.53, TiI 0.21, FeIV 0.42, CI 0.82, CHI 0.64, LLI 0.36, FeI 0.73; ♀ (Cairo): TL 1.32, CL 0.53, CW 0.40, CH 0.26, AL 0.79, AW 0.53, TiI 0.18, FeIV 0.37, CI 0.75, CHI 0.5, LLI 0.35, FeI 0.7.



Figs. 19-26. *Opopaea* sp. Figs. 19-23. ♂ (Sallant). 19. dorsal view. 20. ventral view. 21. eyes. 22. right palp, prolateral view. 23. right palp, retrolateral view. Figs. 24-26. ♀ (Cairo). 24. dorsal view. 25. ventral view. 26. epigynal area.

#### Genus *Orchestina* Simon, 1882

- 43 species, from Africa, Israel, Yemen, Socotra, Seychelles, South East Asia, Philippines, Tasmania, Samoa, USA, Venezuela, Europe, and Canary Is. (Platnick, 2008).

#### *Orchestina pavesii* (Simon, 1873)

Fig. 27.

*Schoenobates p.* Simon, 1873: 45, pl. 1, f. 29-31 (D♂♀). [Not seen]

*O. p.* Simon, 1882: 237 (N) Egypt [*Orchestina* = *Schaenobates*].

*O. p.* Simon, 1890: 87 (N).

*O. p.* Simon, 1893a: 291, f. 251-253, 259, 265 (♂).



*O. p.* Melic, 1994: 114-116, f. 9-11 (♂♀).

*O. p.* Pekár & Gajdoš, 2001: 51, f. 1-4 (♂♀).

*O. p.* Saaristo & Marusik, 2004: 52, f. 10-15 (♂♀).

*O. p.* Saaristo, 2007: 125, f. 17, 19 (♂♀).

**World distribution:** Algeria, Egypt, Canary Is., Yemen, Europe: Spain to Slovakia, Bulgaria.

**Note.** This species is widely distributed in the world. It was recently recorded for the first time from the Iberian Peninsula by Melic (1994) and from Slovakia by Pekár & Gajdoš (2001). Despite of the fact that Simon (1890) said: "I discovered this species in Corsica and I found it again later in Algeria and in Egypt", *Orchestina pavesii* was not recorded from Egypt in his catalogue of North African arachnids (Simon, 1910) nor in subsequent catalogues.

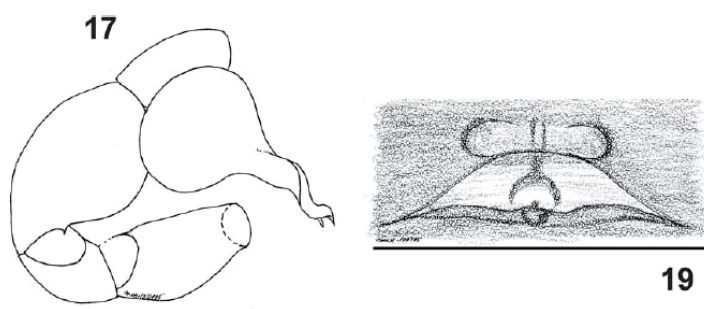
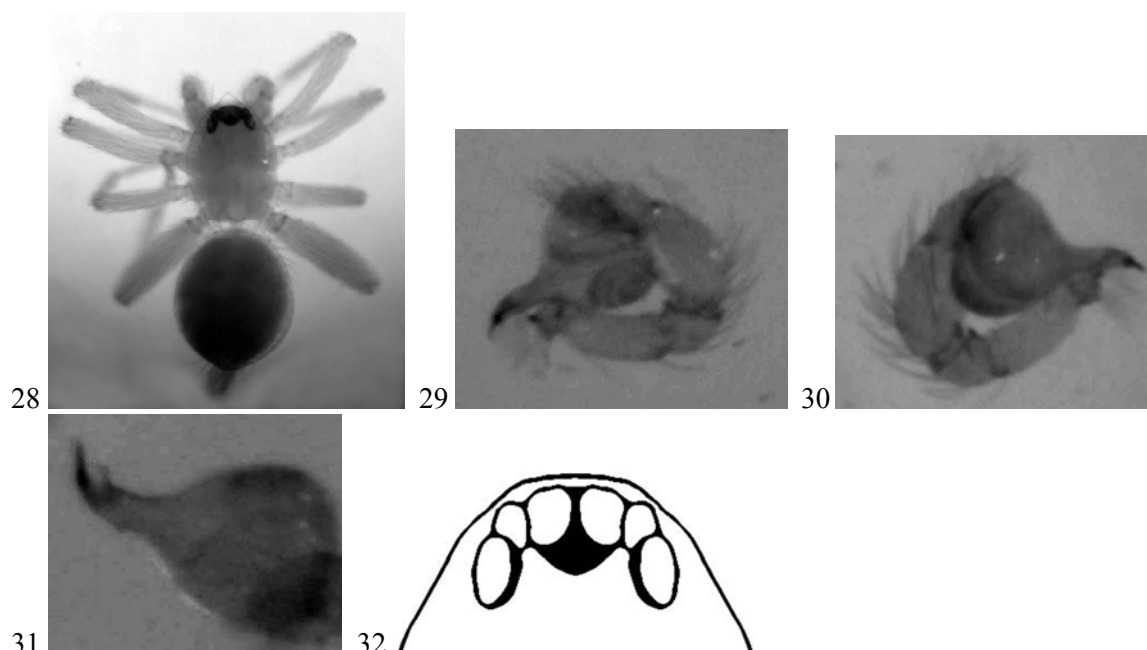


Fig. 27. *Orchestina pavesii* (Simon, 1873)

[17. ♂, right palp laterally. 19. ♀, copulatory organ ventrally.] (After Saaristo, 2007)

*Orchestina* sp.  
Figs. 28-32.



Figs. 28-32. *Orchestina* sp. ♂. 28. dorsal view. 29-31. right palp. 29. prolateral view. 30. retrolateral view. 31. ventral view. 32. eyes.

**Material examined.** Egypt, El-Faiyum, Ebshowai (29°37'N 30°68'E), 1♂, 19 January 2003, Mango orchard, by G. Sallam (ACE 20030119.01).

**Note.** This male of Ebshowai confirms the presence of, at least, genus *Orchestina* in Egypt.

**Measurements.** ♂: TL 1.17, CL 0.53, CW 0.42, CH 0.26, AL 0.64, AW 0.53, TiI 0.42, FeIV 0.58, CI 0.8, CHI 0.5, LLI 0.8, FeI 1.1.

Genus *Ovobulbus* Saaristo, 2007

- Only 3 species from the Middle East (Egypt and Israel) (Saaristo, 2007).

*Ovobulbus bokerella* Saaristo, 2007

Fig. 33.

*O. b.* Saaristo, 2007: 126, f. 34-38 (D♂♀).

**World distribution:** Egypt, Israel.

**Note.** Genus *Ovobulbus* is distinguished by the large, more or less egg-shaped bulbus of the male palp bearing a long and narrow psembolus (= trunk-like, sometimes even filamentous, outgrowth of the bulbus) on its lateral face; cymbium and bulbus separate. Only 1♂ was collected from Egypt, Sinai, Wadi Ara'am, 23 January 1969, by S. Reichenstein (Deposited in the Hebrew University of Jerusalem, HUJ 15311) (Saaristo, 2007).

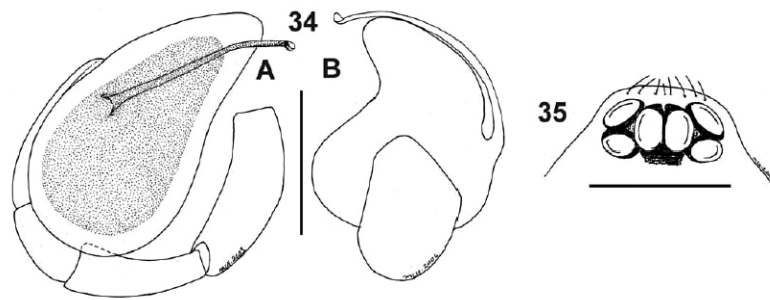


Fig. 33. *Ovobulbus bokerella* Saaristo, 2007

[♂. 34. right palp laterally (A) and mesially (B). 35. eyes dorsally.] (After Saaristo, 2007)

Genus *Sulsula* Simon, 1882

- Only 2 species, *S. pauper* (O. P.-Cambridge, 1876) from Algeria and Egypt and *S. parvimana* (Simon, 1910) from Namibia (Platnick, 2008).

*Sulsula pauper* (O. P.-Cambridge, 1876)

*Oonops p.* O. P.-Cambridge, 1876: 549-550 (D♀). Alexandria (31°12'N 29°54'E), under a stone, 1♀, April 1864, by O. P.-Cambridge (Deposited in Oxford University Museum of Natural History, U.K. (OUMNH)).

*S. longipes* Simon, 1882: 237. 1♂ Ramleh, near Alexandria (31°14'N 29°58'E), by M.A. Letourneux.

*Salsula longipes* Simon, 1893a: 291.

*Salsula pauper* Simon, 1910: 308 (N) Egypt: Alexandria. Algeria: Biskra! On sand, in the dunes.

**World distribution:** Algeria, Egypt.

**Description** (Extracted, with modifications, from Cambridge, 1876).

♀ TL  $1\frac{1}{3}$  line [= 2.82 mm]. The cephalothorax, falces, maxillae, labium, and sternum of this spider are of a dull orange-yellow colour, the legs and palpi being pale straw-yellow, and the abdomen dull whitish brown. The *cephalothorax* is short, broad behind, and strongly constricted laterally at the caput; the normal indentations are tolerably strongly marked; and the height of the clypeus is equal to half that of the facial space; the highest point (looked at sideways) is at the (thoracic junction, whence it runs by an evenly curved slope to the clypeus, the hinder slope not being very abrupt; the clypeus is furnished with some minute tubercles, each of which was probably furnished with a bristly hair; but if so, these had been rubbed off before this description was made. The *eyes* are large, seated on black tubercular spots, and occupy the whole width of the fore part of the caput; the hind lateral and central eyes form a slightly curved row, whose convexity is directed forwards; those of the central pair are as nearly as possible contiguous to each other; and each is separated by rather less than its diameter's distance from the hind lateral nearest to it; the hind laterals have a strong sideway and backward direction, and each is very near, but not quite contiguous to its fore lateral eye; the interval between the fore laterals is equal to very nearly two diameters; those of each lateral pair are placed obliquely, and are rather smaller than those of the central pair. The *legs* are rather long and slender, except the femoral joints; their relative length appears to be 4, 1, 2, 3. Whatever their armature may have been, it was entirely rubbed off before this description was prepared. The *palpi* are rather long, slender, and similar in colour to the legs; the digital joint is cylindrical and exceeds in length the radial and cubital joints together. The *falces* are long, tolerably strong and straight, but strongly directed backwards to the labium; and their front surface is thinly covered with minute, and probably pilose, reddish brown tubercles. The *maxillae* and *labium* are forced backwards into a direction perpendicular to the sternum, owing to the strong backward direction of the falces. Their form is thus very difficult to be ascertained, but it appears to be similar to that of the other species of this genus. The *abdomen*, is short, oval in form, considerably convex above, and does not project over the base of the cephalothorax; the connecting pedicle being distinct. Four spiracular springs are plainly visible, the two extra ones being placed not far behind the ordinary pair. The spinners are short those of the inferior are much the strongest.

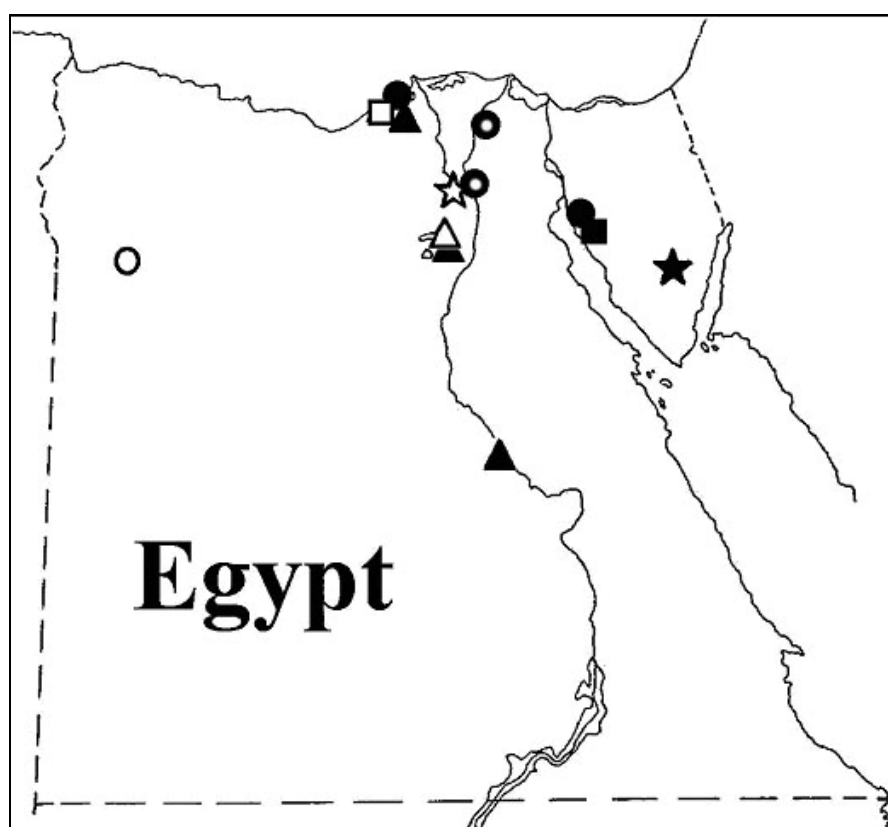
**Description** (Translation of Simon, 1882: 236-237).

Genus *Sulsula* : Cephalothorax wide in rear, greatly attenuated forward, nevertheless wide and obtuse at front; flat above, greatly inclined in rear in the posterior third part. – Eyes, six, arranged in a transverse group at least twice wider than long and occupying nearly all the width of the front, two connivent lateral eyes on each side, two medians fairly placed in rear, at the level of the posterior laterals. – Clypeus wider than the anterior eyes and slightly inclined forwards. – Legs lengths, 4, 2, 1, 3, slender; femurs slightly robust, similar and cylindrical; femurs and tibiae armed by thin spines; distance between coxae of the 4<sup>th</sup> pair greatly narrower than their length; two thin tarsal claws carried by a tarsal segment. – Tegument delicate, furnished with isolated bristles. This genus belongs to the group of the *Oonopides* and is especially neighbor of the genus *Orchestina* E. S. (= *Schaenobates* E. S., not Bl.), of which it differs by the shape of the cephalothorax, the legs of the four pairs equally slender, the median eyes much distant, being placed at the level of the posterior laterals. – The *S. longipes* is the biggest species of the group of the *Oonopides*; its aspect recalls that of a small *Loxosceles*.

*Sulsula longipes* : ♂. TL 2.7 mm. – Cephalothorax and legs very light testaceous tawny. Abdomen testaceous white, furnished with isolated bristles. – Femur I provided with 2 spines on the anterior side and 2 dorsals; femur II, by only one dorsal; femurs III and IV, by 2 or 3 dorsals; tibiae I and II provided with 3 long lateral spines internal and external. – Pedipalps short; patella wide and convex; tibia longer than the patella, attenuated; small

tarsus, obtuse; bulb wide pyriform, subglobular, prolonged at tip, fairly wide and cylindrical in the first half, very slim and arched in the second.

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Map 1. Distribution of recorded oonopid species in Egypt.

- ▲ - *Dysderina scutata* (O. P.-Cambridge, 1876) - Alexandria, El-Faiyum, Sohag.
- - *Gamasomorpha arabica* Simon, 1893 - Ain Musa.
- ☆ - *Ischnothyreus velox* Jackson, 1908 - Cairo.
- - *Opopaea margaritae* (Denis, 1947) - Siwa.
- - *Opopaea punctata* (O. P.-Cambridge, 1872) - Alexandria, Ain Musa.
- ◐ - *Opopaea* sp. - Cairo, Sallant.
- △ - *Orchestina* sp. - Ebshowai
- ★ - *Ovobulbus bokerella* Saaristo, 2007 - Sinai.
- - *Sulsula pauper* (O. P.-Cambridge, 1876) - Alexandria.

### Key to Genera and Species of Oonopidae recorded from Egypt

Oonopidae is roughly divided into two groups called Oonopidae loricati and Oonopidae molles (In Latin: loricatus = clothed in mail, harnessed; mollis = soft) according to the chitinization level of their bodies. The members of the loricati group have their cephalothorax closed inside a casing, which has a large frontal opening to allow insertion of the chelicerae and endites bearing the palps as well as lateral openings for the legs while their abdomen is enclosed between dorsal and ventral shields and also spinnerets are partially surrounded by a chitin ring. The members of the second group have no dorsal scutum on abdomen (In Latin: scutum = shield; pl. scuta) and the ventral scutum is much reduced but apparently never totally absent (Saaristo, 2007).

1. Abdomen without dorsal scutum and the ventral scutum is much reduced but apparently never totally absent ..... *Oonopidae molles* ... 2
- Abdomen enclosed between dorsal and ventral shields (scuta) and spinnerets are partially surrounded by a chitin ring ..... *Oonopidae loricati* ... 4
2. Femur IV enlarged. Posterior median eyes located between anterior laterals forming a straight or a slightly procurved line (Fig. 27). Legs without spines ... *Orchestina pavesii*
- Femur IV not enlarged, similar to other femora. Posterior row of eyes recurved, including posterior median eyes ..... 3
3. Legs, especially posteriors, sparingly spiny ..... *Sulsula pauper*
- Legs without spines, claws conspicuously large. Male palp with large, more or less egg-shaped bulbus. Eyes (Fig. 28) ..... *Ovobulbus bokerella*
4. Dorsal scutum covers less than 89% abdominal length ..... *Ischnothyreus velox*
- Dorsal scutum covers entire abdominal length ..... 5
5. Anterior tibiae and metatarsi ventrally fortified by two rows of long slanting spines ..... *Dysderina scutata*
- Legs entirely without spines ..... 6
6. Cephalothorax short, convex, posteriorly abruptly declined. Sternum wide, heart-shaped. Male palp with bulbus separate from cymbium ..... *Gamasomorpha arabica*
- Cephalothorax long, low and flat. Clypeus narrow. Sternum long and oval. Male palp with bulbus fused to cymbium to form cymbiobulbus ..... *Opopaea* ... 7
7. Cephalothorax orange-yellow, ♀ TL 1.3 mm, CI 0.9 (from Fig. 13, Denis, 1947) ..... *Opopaea margaritae*
- Cephalothorax brownish orange, ♀ TL 1.46 (Israel specimen, Saaristo, 2007), 1.66 (Lebanon specimen, Assi, 1982), CI 0.76 (Israel), 0.88 (Lebanon) ..... *Opopaea punctata*

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